REMARKS

Claims 1-20 are currently pending in the Application. In the Office Action dated September 23, 2003 ("Office Action"), the Examiner curiously included a Response to Amendment section in which reference is made to amendments to claims not complying with the requirements of 37 CFR § 1.121(c). Applicant's representative has no record of an amendment being filed in this case, nor does the Assignee, Hewlett-Packard Company. Applicant's representative therefore proceeds with the assumption that this section was included in error. In the Office Action, the Examiner objected to claim 6, rejected claims 1, 6, 10, and 15 under 35 U.S.C. § 102(e) as being anticipated Kilkki et al., U.S. Patent No. 6,011,778 ("Kilkki"), rejected claims 2-3 and 11-12 under 35 U.S.C. § 103(a) as being unpatentable over Kilkki, and rejected claims 4-5, 7-9, and 13-19 under 35 U.S.C. § 103(a) as being unpatentable over Kilkki in further view of Storch et al., U.S. Patent No. 5,920,846, and presumably rejects claim 20 for the same reason. Applicant's representative has amended claim 6 in view of the above mentioned objection, and respectfully traverses these 35 U.S.C. § 103(a) rejections.

Claim 1 of the current application is provided, below, for the Examiner's convenience, and is used as a basis for the following discussion:

> 1. (original) A method for fairly servicing, by a request servicing device, electronic requests received by the request servicing device from request generating devices interconnected with the request receiving device, the method comprising:
>
> establishing a pricing tier for each request generating device, a maximum rate of request servicing, and an expected time for serving a request at the maximum rate of request servicing;
>
> for each request generating device with a premium pricing tier, maintaining an instantaneous rate of request servicing by the request servicing device;
>
> following servicing of each request from a request generating device by the request servicing device,
>
> determining a time elapsed during servicing of the request;
>
> when the time elapsed during servicing of the request is less than the expected time for serving a request established for the request generating device,
>
> *calculating a remaining time equal to the difference between expected time for serving a request established for the request generating device and the time elapsed during servicing of the request; and*
>
> *waiting for a length of time based on the calculated remaining time prior to servicing another request for the request generating device.* (emphasis added)

Please consider the final elements of claim 1, emphasized above. Please note that Applicant's claimed method involves determining a time elapsed during servicing of a request for a request generating device with a premium pricing tier and, when the elapsed time is less than expected for servicing the request, calculating the difference between the expected time and elapsed time and waiting only for a length of time equal to the difference before servicing the next request for the request generating device with the premium pricing tier. In other words, an expected time for servicing each next request is calculated for each request generating device, as claimed in the first step of claim 1, based on a maximum rate of request servicing determined for each request generating device.

If requests are serviced for a request generating device at points in time separated by the determined time for servicing each next request, then the request generating device achieves its determined maximum rate of request servicing. As discussed in the current application, a request generating device may receive a rate of request servicing significantly less than the maximum rate of request servicing determined for the request generating device by servicing requests at only the points in time separated by the determined time for servicing each next request. For example, the request generating device may fail to have requests available at certain points of time, but may have numerous requests available at other points of time. Therefore, despite generally having sufficient requests available, when a longer time interval is considered, to achieve the maximum rate of request servicing determined for the request generating device, due to the mercurial nature of request availability, when considered at short time intervals, the request generating device receives a fraction of the maximum rate of request servicing determined for the request generating device.

As discussed in the current application, in one embodiment of the Applicant's invention, for premium-pricing-tier request generating devices, an effort is made to more closely provide the maximum rate of request servicing determined for the premium-pricing-tier request generating device. This is achieved by shortening the period of time before beginning to service a next service request, in essence temporarily increasing the maximum rate of request servicing provided to the request generating device. This method for enabling premium-pricing-tier request generating devices to

achieve their determined maximum rate of request servicing is exactly claimed in the final two elements of claim 1: "calculating a remaining time equal to the difference between expected time for serving a request established for the request generating device and the time elapsed during servicing of the request; and waiting for a length of time based on the calculated remaining time prior to servicing another request for the request generating device."

Please next consider Kilkki. Kilkki discloses a method "for controlling the priority assigned to information elements transmitted across a network connection" (column 3, lines 24-26). Already, it is apparent that Kilkki's disclosed technique differs substantially from Applicant's claimed method. Kilkki concerns assigning priorities to network messages, while Applicant's method alters a time before servicing a next request on behalf of a request generating device. In Kilkki, the network messages are referred to as "cells," as explained on lines 27-32 of column 3. As explained in Kilkki, Kilkki's method is applied to a nominal-bit-rate ("NBR") service connection for transmission of cells from a user/network interface ("UNI") through an NBR network connection to remote devices. (column 4, l;ines 60-66). As disclosed by Kilkii in the paragraph beginning on line 21 of column 4:

> After computing the priority level of each cell at the UNI, the cells are transmitted 48 to the network, such as to a node of the network. A network node, upon arrival of a cell transmitted from the UNI, performs a cell filtering process by which the node determines whether to accept or discard a particular cell. The cell filtering process involves determining 50 the state of one or more buffers or memories of the network node to determine a buffer or memory occupancy level. The node accepts or discards 52 a cell based on the priority level of the cell and the state of the node buffer.

Thus, Kilkki's method analyzes message transmission times to assign priorities to messages, and then either accepts or discards messages generated through a user/network interface depending on the message priorities. This is a completely different technique from Applicant's claimed method. Applicant's method does not assign priorities to requests, and does not service some requests, and discard others, based on priorities. Instead, as clearly claimed above in claim 1, Applicant's method associates a time to wait before servicing a next request to a request generating device, and alters that waiting time

in order to allow a premium-pricing-tier request generating device to achieve its determined maximum rate of request servicing.

It is true that Kilkki's method does appear to result in a price-based network performance for user/network interfaces. But Kilkki accomplishes this by a completely different method – one that prioritizes messages, and accepts or rejects messages based on transmission rates and priorities. Kilkki does not teach or suggest altering a time interval between finishing of a currently serviced request and accepting a subsequent request for a request generating device – clearly and explicitly claimed above in claim 1. In a disk-array, for example, as discussed in the current application, a disk array controller cannot simply discard disk WRITE and READ requests. Doing so would immediately incur data corruption and other deleterious effects. Kilkki's method would be completely unworkable in the disclosed implementations. Moreover, Kilkki's goal is to provide a rate of bit transmission through a network desired by a user or connection, while, by contrast, Applicant's claimed method, as clearly claimed, seeks to provide a request servicing rate as close as possible to a maximum request servicing rate for premium-pricing-tier request generating devices.

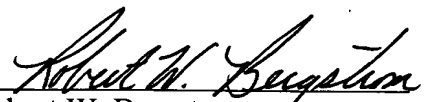
Storch relates to a method for processing customer service requests in a telecommunications company. Storch appears to be completely unrelated to Applicant's claimed method, to disk arrays, and anything else disclosed or mentioned in the current application. The Examiner appears to cite Storch in a dictionary-like fashion to fill in for aspects of the current claims that the Examiner believes are not covered by Kilkki. For example, the examiner cites column 9, lines 43-46 of Storch for teaching a request servicing device that is an electronic storage device. However, the cited lines of Storch merely refer to "data storage in computer memory of information indicating installation of those inside and outside facilities and equipment that are assigned and not previously installed." The term "request servicing device" in claim 4 refers to the "request servicing device, electronic requests received by the request servicing device from request generating devices interconnected with the request receiving device" of claim 1, including all of the additional language of claim 1. It is well known that computer systems include data storage components, but that fact has nothing to do with whether or not the claimed invention is novel and nonobviousness. The data storage of Storch is

used to store, installation information, and Storch makes no indication that this data storage services requests from request generating devices in the manner of claim 1. The Examiner then states that it "would have been obvious to one of ordinary skill in the art at the time of the applicant's invention for the request servicing device to be an electronic data storage device with the motivation of having means to save the request made by the user for future applications." Applicant's representative fails to understand this statement. Nowhere in claims 1-4 does Applicant claim, recite, or mention saving requests made by a user for future applications. Indeed, the word "application" is not recited in any of the current claims, and Applicant's representative has no idea what the phrase "with the motivation of having means to save the request made by the user for future applications" means, or how any possible meaning is relevant to the current application.

In summary, Kilkki discloses a system for assigning priorities to individual network messages, based on message transmission times, and controlling transmission bit rates by accepting or discarding newly transmitted messages based on the priorities assigned to the messages. Storch relates to a method for processing customer service requests in a telecommunications company, and appears to be completely unrelated to the current application. The current application, by contrast, alters a time that a request servicing device waits before servicing a next request from a request generating device in order to provide, for premium-pricing-tier request generating devices, a request servicing rate close to a maximum request servicing rate.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,
Robert Alan Cochran
Olympic Patent Works PLLC



Robert W. Bergstrom
Registration No. 39,906

Enclosures:
Postcards
Transmittal

Olympic Patent Works PLLC
P.O. Box 4277
Seattle, WA 98194-0277
206.621.1933 telephone
206.621.5302 fax